

CLAIMS

1. An adhesive comprising polyisocyanate and a polyol comprising at least one dimer fatty acid and/or dimer fatty diol.
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2. An adhesive according to claim 1 wherein the polyisocyanate has a viscosity in the range from 100 to 300 mPa.s.
3. An adhesive according to either one of claims 1 and 2 wherein the dimer is
10 formed from C₁₄ to C₂₂ alkyl chains.
4. An adhesive according to any one of the preceding claims wherein the dimer comprises in the range from 10 to 30% by weight of trimer.
- 15 5. An adhesive according to any one of the preceding claims wherein the polyol comprises a polyester.
6. An adhesive according to claim 5 wherein the dicarboxylic acid component of
20 the polyester is substantially all dimer fatty acid.
7. An adhesive according to either one of claims 5 and 6 wherein the diol component of the polyester comprises ethylene glycol and/or propylene glycol.
- 25 8. An adhesive according to any one of claims 5 to 7 wherein the molar ratio of the diol and dicarboxylic acid present in the polyester is in the range from 1.15 to 2:1.
9. An adhesive according to any one of claims 5 to 8 wherein the molecular
30 weight of the polyester is in the range from 800 to 2,500.
10. An adhesive according to any one of claims 5 to 9 wherein the glass transition temperature (Tg) of the polyester is in the range from -50 to -20°C.
11. An adhesive according to any one of the preceding claims having a molecular weight in the range from 650 to 1,500.

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12. An adhesive according to any one of the preceding claims having an isocyanate content in the range from 12 to 30% NCO.

5 13. An adhesive according to any one of the preceding claims comprising in the range from 14 to 30% by weight of dimer fatty acid and/or dimer fatty diol.

14. An adhesive according to any one of the preceding claims having a lap shear adhesion value of greater than 6 MPa.

10 15. An adhesive according to any one of the preceding claims having a creep rupture adhesion value at a stress value of 8 MPa of greater than 1,000,000 seconds in air at 23°C.

15 16. An adhesive according to any one of the preceding claims having a creep rupture adhesion value at a stress value of 6 MPa of greater than 2,500 seconds in water at 90°C.

20 17. An adhesive according to any one of the preceding claims having a creep rupture adhesion value at a stress value of 4 MPa of greater than 500,000 seconds in water at 90°C.

18. An adhesive according to any one of claims 16 to 17 wherein the creep rupture adhesion value in water at 90°C is at least 70% of the value in air at 23°C.

25 19. An adhesive according claim 18 wherein the creep rupture adhesion value in water at 90°C is at least 90% of the value in air at 23°C.

20. A substrate coated with an adhesive as defined in any one of the preceding claims.

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21. The use of an adhesive as defined in any one of claims 1 to 19, to adhere wood.

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22. Wooden joists, wooden frames and/or external wooden cladding adhered together using an adhesive as defined in any one of claims 1 to 19.